

EduSahara™ Learning Center Assignment**Grade : Class VII, SSC****Chapter : Exponents****Name : Expanded and Power Notation****Licensed To : Teachers and Students for non-commercial use**

Find the exponential notation of

1. $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$

(i) 2^9 (ii) 4^8 (iii) 2^5 (iv) 2^8 (v) 2^7

Find the exponential notation of

2. $-5 \times -5 \times -5 \times -5 \times -5 \times -5 \times -5$

(i) $(-5)^8$ (ii) $(-8)^7$ (iii) $(-5)^6$ (iv) $(-2)^7$ (v) $(-5)^7$

Find the exponential notation of

3. $-16 \times -16 \times -16$

(i) $(-19)^3$ (ii) $(-16)^3$ (iii) $(-16)^4$ (iv) $(-13)^3$ (v) $(-16)^2$

Find the exponential notation of

4. $11 \times 11 \times 11 \times 11 \times 11$

(i) 11^5 (ii) 13^5 (iii) 11^4 (iv) 11^6 (v) 8^5

Find the exponential notation of

5. $\frac{6}{1} \times \frac{6}{1} \times \frac{6}{1} \times \frac{6}{1} \times \frac{6}{1} \times \frac{6}{1} \times \frac{6}{1} \times \frac{6}{1}$

(i) 6^9 (ii) 6^7 (iii) 3^8 (iv) 8^8 (v) 6^8

Find the exponential notation of

6. $\frac{14}{13} \times \frac{14}{13} \times \frac{14}{13} \times \frac{14}{13} \times \frac{14}{13} \times \frac{14}{13} \times \frac{14}{13} \times \frac{14}{13}$

(i) $\left(\frac{14}{13}\right)^8$ (ii) $\left(\frac{14}{13}\right)^7$ (iii) $\left(\frac{16}{13}\right)^8$ (iv) $\left(\frac{14}{13}\right)^9$ (v) $\left(\frac{12}{13}\right)^8$

Find the exponential notation of

7. $\left(\frac{-2}{5}\right) \times \left(\frac{-2}{5}\right) \times \left(\frac{-2}{5}\right) \times \left(\frac{-2}{5}\right) \times \left(\frac{-2}{5}\right) \times \left(\frac{-2}{5}\right) \times \left(\frac{-2}{5}\right)$

(i) $\left(\frac{-2}{5}\right)^{10}$ (ii) $\left(\frac{-2}{5}\right)^8$ (iii) $\left(\frac{-2}{5}\right)^6$ (iv) $\left(\frac{-2}{5}\right)^7$ (v) $\left(\frac{-4}{5}\right)^7$

Find the exponential notation of

8. $\left(\frac{-17}{12}\right) \times \left(\frac{-17}{12}\right) \times \left(\frac{-17}{12}\right) \times \left(\frac{-17}{12}\right) \times \left(\frac{-17}{12}\right) \times \left(\frac{-17}{12}\right)$

(i) $\left(\frac{-17}{12}\right)^7$ (ii) $\left(\frac{-5}{4}\right)^6$ (iii) $\left(\frac{-17}{12}\right)^6$ (iv) $\left(\frac{-17}{12}\right)^5$ (v) $\left(\frac{-19}{12}\right)^6$

9. Expand the following base power 3^5

(i) 243 (ii) 7776 (iii) 81 (iv) 1 (v) 729

10. Expand the following base power 3^{-2}

(i) $\frac{1}{243}$ (ii) $\frac{1}{27}$ (iii) $\frac{1}{3}$ (iv) $\frac{1}{25}$ (v) $\frac{1}{9}$

11. Expand the following base power $(-4)^2$

(i) -4 (ii) 49 (iii) 16 (iv) 4 (v) -64

12. Expand the following base power $(-4)^{-5}$

(i) $\left(\frac{-1}{1024}\right)$ (ii) -1 (iii) $\frac{1}{4096}$ (iv) $\left(\frac{-1}{7776}\right)$ (v) $\frac{1}{256}$

13. Expand the following base power $\left(\frac{2}{5}\right)^2$

(i) $\frac{16}{25}$ (ii) $\frac{2}{5}$ (iii) $\frac{8}{125}$ (iv) $\frac{4}{25}$ (v) 0

14. Expand the following base power $\left(\frac{3}{2}\right)^{-2}$

(i) $\frac{2}{3}$ (ii) $\frac{4}{9}$ (iii) $\frac{4}{25}$ (iv) $\frac{8}{27}$ (v) 4

15. Expand the following base power $\left(\frac{-1}{5}\right)^3$

(i) $\left(\frac{-27}{125}\right)$ (ii) $\frac{1}{625}$ (iii) $\frac{1}{25}$ (iv) $\left(\frac{-1}{125}\right)$ (v) $\frac{1}{125}$

16. Expand the following base power $\left(\frac{-5}{4}\right)^{-2}$

(i) $\frac{16}{49}$ (ii) $\left(\frac{-64}{125}\right)$ (iii) $\frac{16}{25}$ (iv) $\left(\frac{-4}{5}\right)$ (v) $\frac{16}{9}$

17. Find the exponential notation of $\frac{8}{225}$

(i) $\frac{2^3}{3^2 \times 3^2}$ (ii) $\frac{2^4}{3^2 \times 5^2}$ (iii) $\frac{2^3}{3^2 \times 5^2}$

(iv) $\frac{2^3}{6^2 \times 5^2}$ (v) $\frac{2^2}{3^2 \times 5^2}$

18. Find the exponential notation of $\left(\frac{-20}{3}\right)$

(i) $\frac{-1 \times 2^2 \times 5}{6}$ (ii) $\frac{-1 \times 2^2 \times 5}{3^{-1}}$ (iii) $\frac{-2 \times 2^2 \times 5}{3}$

(iv) $\frac{-1 \times 2^2 \times 5^2}{3}$ (v) $\frac{-1 \times 2^2 \times 5}{3}$

19. Find the exponential notation of $(\frac{-5}{126})$

$$(i) \frac{-1 \times 5}{2 \times 3^2 \times 7} \quad (ii) \frac{-1 \times 5}{2 \times 3^2 \times 9} \quad (iii) \frac{-1 \times 5}{2 \times 1 \times 7}$$

$$(iv) \frac{(-1)^2 \times 5}{2 \times 3^2 \times 7} \quad (v) \frac{-1 \times 4}{2 \times 3^2 \times 7}$$

20. Find the exponential notation of $(\frac{-64}{27})$

$$(i) \left(\frac{-4}{3}\right)^3 \quad (ii) \left(\frac{-4}{3}\right)^2 \quad (iii) (-2)^3$$

$$(iv) \left(\frac{-2}{3}\right)^3 \quad (v) \left(\frac{-4}{3}\right)^4$$

21. Find the exponential notation of $\frac{25}{168}$

$$(i) \frac{5^3}{2^3 \times 3 \times 7} \quad (ii) \frac{5^2}{2^3 \times 1 \times 7} \quad (iii) \frac{5^2}{2^3 \times 3 \times 7}$$

$$(iv) \frac{5^2}{5^3 \times 3 \times 7} \quad (v) \frac{5}{2^3 \times 3 \times 7}$$

22. Find the exponential notation of $(\frac{-4480}{6561})$

$$(i) \frac{-1 \times 2^7 \times 5 \times 7}{1} \quad (ii) \frac{-1 \times 2^7 \times 5^2 \times 7}{3^8} \quad (iii) \frac{-1 \times 2^7 \times 5 \times 7}{5^8}$$

$$(iv) -1 \times 2^7 \times 5 \times 6 \quad (v) -1 \times 2^7 \times 5 \times 7$$

$$3^8$$

$$3^8$$

23. Find the prime factorization of -32

(i) -3×2^5 (ii) -1×2^5 (iii) 2×2^5

(iv) -2×2^5 (v) $(-1)^2 \times 2^5$

24. Find the exponential notation of $\frac{16}{3}$

(i) $\frac{2^5}{3}$ (ii) $\frac{2^4}{1}$ (iii) $\frac{2^3}{3}$

(iv) $\frac{2^4}{3}$ (v) $\frac{2^4}{5}$

Assignment Key

- 1) (iv)
- 2) (v)
- 3) (ii)
- 4) (i)
- 5) (v)
- 6) (i)
- 7) (iv)
- 8) (iii)
- 9) (i)
- 10) (v)
- 11) (iii)
- 12) (i)
- 13) (iv)
- 14) (ii)
- 15) (iv)
- 16) (iii)
- 17) (iii)
- 18) (v)
- 19) (i)
- 20) (i)
- 21) (iii)
- 22) (v)
- 23) (ii)
- 24) (iv)